

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Caulk

Delaware Manufacturing Extension Partnership

Dentsply Caulk Stays Ahead of the Pack with Lean

Client Profile:

Dentsply Caulk, founded in 1877, manufactures dental consumables including bonding materials, adhesive resins, tooth whiteners and impression materials.

The company employs 150 people at its facility in Milford, Delaware.

Situation:

To help maintain its industry leadership, Dentsply Caulk had been turning to the Delaware Manufacturing Extension Partnership (DEMPEP), a NIST MEP network affiliate, for training for about 10 years. Once again, Caulk contacted DEMPEP for training in Total Preventative Maintenance (TPM) and Teambuilding.

Solution:

In a TPM program, a trainer works with a team of employees for a full week, spending one day in a classroom setting and three days in a hands-on analysis of the manufacturing process. The program focuses on improving overall equipment efficiency, or getting the most out of the machinery on the assembly line. Specifically, equipment is cleaned and calibrated, analyzed for failures, and freed of waste. TPM culminates with a presentation to plant management detailing everything that the team has learned and offering suggestions for improvements and modifications to make the plant more efficient.

The TPM training conducted by DEMPEP focused on a unit that makes and packages materials for a composite filling and then assembles it in a kit that's easy for a dentist to use. Caulk had two similar, but not identical, machines (and assembly lines) running to make the same product. Through the TPM event, the Caulk team was able to double the operating efficiency of one of the machines, moving it from about 30 percent efficiency to better than 60 percent efficiency. By doubling the efficiency of one machine, the second machine became unnecessary, freeing up floor space and personnel to work on additional product lines. The training contributed to the quick resolution of conflicts between employees and managers. For example, assembly line supervisors have moved their work stations so they are now all in the same room, improving cooperation and making it easier for one to support another when problems develop. Teambuilding sessions served as a springboard for creating a 'balanced scorecard,' a series of measuring sticks that are applied to such items as accuracy of inventory, product waste, absenteeism, training, safety, employee suggestions implemented, and working within budget. Tallies are kept monthly for each work unit within the plant. Units that exceed their goals get a free lunch in the cafeteria; units that do exceptionally well get a free meal off-site. If units don't meet their targets, it's easy to identify where they need to improve.

Results:

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- * Reduced backorders by 49 percent.
- * Reduced inventory levels by 12 percent.
- * Reduced scrap costs by 35 percent.
- * Opened new market for product.
- * Reduced floor space by 2,400 square feet.
- * Created 30 new jobs.

Testimonial:

"DEMEP trainers have a wealth of experience, and they're a pleasure to work with."

Andy Johnson, Director of Operations